

EVALUATION OF THE ELEMENTARY SCHOOLS PILOT PROJECT FOR CANNED, FROZEN, OR DRIED FRUITS AND VEGETABLES IN THE FRESH FRUIT AND VEGETABLE PROGRAM: FINAL REPORT

Background

The Fresh Fruit and Vegetable Program (FFVP), administered by the U.S. Department of Agriculture's (USDA) Food and Nutrition Service (FNS), provides funding for the distribution of free fresh fruit and vegetable snacks to students in selected elementary schools with high rates of free and reduced-price meal enrollment. The goals of the FFVP are to improve children's overall diets and create healthier eating habits that will improve their present and future health.

Section 4214(d) of the Agricultural Act of 2014 (P. L. 113-179; the Act) called for a pilot project within the FFVP to offer canned, frozen, or dried (CFD) fruits and vegetables as part of the FFVP in school year (SY) 2014–2015. The Act required an evaluation of the pilot focusing on four key study objectives: (1) impact on students' fruit and vegetable consumption, (2) impact on school participation in the FFVP and operation of the program, (3) implementation strategies used by schools participating in the pilot, and (4) acceptance of the pilot project by key stakeholders.

Methods

Four States (Alaska, Delaware, Kansas, and Maine) applied for and were accepted into the pilot. The pilot study included 58 schools from 31 districts across the four States. Most (84 percent) pilot school districts were located in rural areas; 78 percent of pilot schools had a total enrollment of 250 students or less.

The evaluation used a pre/post design, comparing data from the fall of 2014, when the standard FFVP was in place, to data from the spring of 2015, when the FFVP-CFD pilot was in place. Schools had the option to serve canned, frozen, and dried fruits and vegetables beginning January 1, 2015.

Data collection occurred over a period of 10 weeks in both the fall and the spring:

- Dietary recalls and FFVP snack observations were conducted with a sample of students at the pilot schools to assess the impact of the pilot on fruit and vegetable consumption.
- Food service managers provided information on the frequency and type of fruits and vegetables offered as part of FFVP.
- Surveys of participating State Child Nutrition (CN) Directors, School Food Authority (SFA) Directors, principals, food service managers, teachers, parents, and students were conducted to assess the level of acceptance of the pilot project.

In addition, all 54 State CN Directors received a survey that inquired about their views of the FFVP and their reasons for applying, or not, to the pilot project.

Findings

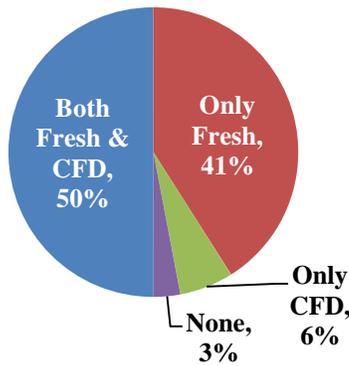
Access to fresh fruits and vegetables was a key factor when States were deciding to apply for the pilot. All four pilot States cited difficulty in accessing fresh fruits and vegetables as a major reason for applying to the pilot, whereas 59 percent of the non-pilot States indicated that they did not apply for the pilot due to their schools having adequate access to fresh fruits and vegetables.

While the majority of pilot schools served a combination of fresh and CFD snacks, a large portion of schools served only fresh fruits and vegetables during the pilot. On an average school week during the pilot, 50 percent of schools offered both fresh and CFD fruits and vegetables, 41 percent offered only fresh fruits and vegetables, 6 percent offered only CFD fruits and vegetables, and 3 percent did not offer any fruits or vegetables as part of FFVP.

Of the CFD fruits and vegetables offered during the pilot, dried and canned fruits were much more

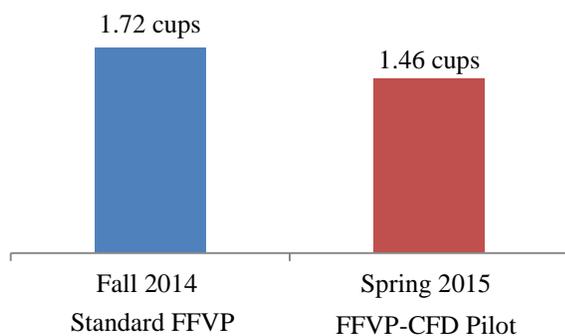
common than other CFD items, representing more than 25 percent of all observed FFVP snacks in spring 2015. Frozen fruits and canned vegetables each made up less than 1 percent of snacks under the pilot. The evaluation did not observe any schools offering dried or frozen vegetables.

Types of Snacks Offered on an Average Week During the FFVP -CFD Pilot



Students in FFVP-CFD pilot schools consumed less fruits and vegetables after the pilot was implemented. Students' daily in-school consumption of fruits and vegetables decreased by approximately one-fourth of a cup (0.26 cups) from 1.72 cups in fall 2014 to 1.46 cups in spring 2015.¹ Fruit and vegetable consumption on school days when FFVP was not offered did not change significantly between fall and spring, making it plausible that the change on program days was related to the FFVP-CFD pilot. The decrease in fruit and vegetable consumption was driven by decreased consumption of fruit. Vegetable consumption did not significantly change from fall 2014 to spring 2015.

Total Fruits and Vegetables Consumed in School on an FFVP Day



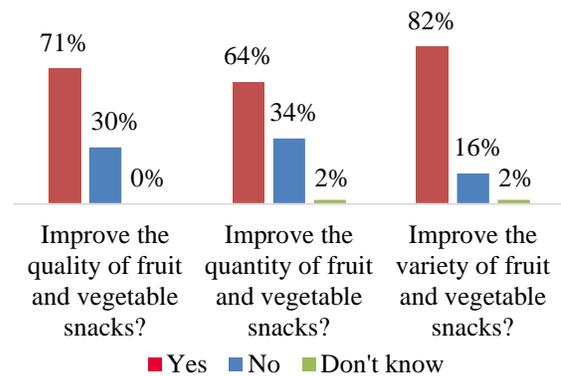
¹The findings noted in the report were adjusted to the appropriate cup equivalents in order to provide a comparable measure for different varieties of fruits and vegetables. For example, 2 cups of raw leafy greens equaled 1 cup equivalent and 1/2 cup of dried fruits equaled 1 cup equivalent.

A substantial decrease in consumption of fresh fruit was the largest single cause of the overall change in fruit and vegetable consumption from fall to spring. Consumption of fresh fruits on FFVP program days declined by more than a fifth of a cup, from 0.69 cups in the fall to 0.48 cups in the spring. Dried fruit consumption increased from fall 2014 to spring 2015, but not enough to offset the larger decrease in fresh fruit.

Respondents across all stakeholder groups uniformly praised and appreciated the FFVP both in the fall and spring. However, these groups had distinct views about the FFVP-CFD pilot.

- The majority of food service managers indicated that the pilot improved the overall FFVP with key benefits, including improved snack quality, quantity, and variety.
- Nearly all (95 percent) of School Food Authority Directors and 80 percent of principals wanted the pilot to continue in their schools.
- On the other hand, two-thirds of parents preferred for their child to be served fresh fruits and vegetables instead of canned, frozen or dried options.

Benefits of the FFVP-CFD Pilot according to Food Service Managers



For More Information

Briefel, R., Gothro, A., Sinclair M., et al. (2017). Evaluation of the Pilot Project for Canned, Frozen, or Dried Fruits and Vegetables in the Fresh Fruit and Vegetable Program: Final Report. Prepared by Mathematica Policy Research, Contract No. AG-3198-K-14-0039. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Project Officer: Allison Magness. Available online at: www.fns.usda.gov/research-and-analysis.